

**11.9** encourage development of local Codes of Conduct for coastal aquaculture

**11.10** abandoned or underutilized shrimp/fish ponds should be rehabilitated back to mangroves by restoring natural hydrology for natural recolonisation and/or by planting

**11.11** mitigate against potential harmful impacts on mangroves:

- habitat loss
- pollution
- associated species as fish feed
- escapees of farmed animals, including exotic species
- transfer of diseases from farmed to wild populations
- bycatch destruction
- hydrological alteration

## **SEAFDEC RESOLUTION AND PLAN OF ACTION**

**2001: Resolution on Sustainable Fisheries for Food Security for the ASEAN Region (SEAFDEC, November 2004)**

9. Work towards the conservation and rehabilitation of aquatic habitats essential to enhancing fisheries resources;
10. Mitigate the potential impacts on the environment and biodiversity, including the spreading of aquatic animal diseases, caused by the uncontrolled introduction and transfer of non-indigenous and exotic aquatic species;
- .....
12. Increase aquaculture production in a sustainable and environment-friendly manner by ensuring a stable supply of quality seeds and feeds, effectively controlling disease, promoting good farm management and transferring appropriate technology;
13. Promote aquaculture for rural development, which is compatible with the rational use of land and water resources, to increase fish supply and improve the livelihoods of rural people;

**Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region (SEAFDEC, November 2004)**

### **B. AQUACULTURE**

1. Ensure that national policies and regulatory frameworks on aquaculture development are directed toward sustainability and avoidance of conflicts by incorporating consultations with stakeholder groups, implementing aquaculture zoning, considering social and environmental impact, and also regulating rights of access to, and use of, open water sites for mariculture.
2. Ensure production of high quality seeds on a consistent and sustainable basis by providing government support for public and private hatchery development and research, developing domesticated broodstocks and fish reproductive technologies, and promoting responsible collection and use of wild broodstock and seed.

3. Promote good farm management practices that reduce effluent pollution load and comply with relevant effluent standards through appropriate treatment.
4. Reduce the risks of negative environmental impacts, loss of biodiversity, and disease transfer by regulating the introduction and transfer of aquatic organisms in accordance with the Regional Guidelines on the Responsible Movement of Live Aquatic Animals and Plants.
5. Improve the efficient use of aquatic feeds by regulating the quality of manufactured feed and feed ingredients, providing guidelines on farm-level food conversion ratios and levels of aquaculture effluents, and supporting research into developing suitable alternative protein sources to reduce dependence on fish meal and other fish based products.
6. Improve capabilities in the diagnosis and control fish diseases within the region by developing technology and techniques for disease identification, reliable field-side diagnostics and harmonized diagnosis procedures, and establishing regional and inter-regional referral systems, including designation of reference laboratories and timely access to disease control experts within the region.
7. Formulate guidelines for the use of chemicals in aquaculture, establish quality standards and take measures to reduce or eliminate the use of harmful chemicals.
8. Build human resource capabilities for environment-friendly, healthy, wholesome and sustainable aquaculture through closer public and private sector collaboration in research and development, paying particular attention to the emerging need for skills in biotechnology, and effectively implementing aquaculture education and extension services.
9. Promote aquaculture as an integrated rural development activity within multiple-use of land and water resources available through inter-agency coordination in policy formulation, project planning and implementation, stakeholder consultation, extension services and technology transfer.

## **SEAFDEC AQD**

### **April 1996** - SEAFDEC Council instructions for AQD

- a) to conduct studies on environment-friendly shrimp culture
- b) to build up expertise on mangroves

### **2000** - Mangrove-Friendly (Shrimp) Aquaculture Workshop, Iloilo City

- implementation of Mangrove-Friendly (Shrimp) Aquaculture Project

### **2001** - Mangrove Webpage ([www.mangroveweb.net](http://www.mangroveweb.net))

### **2002** - Best Management Practices for Mangrove-Friendly Shrimp Culture

### **2003** - Regional Seminar-Workshop on Mangrove-Friendly Shrimp Aquaculture, Bangkok

### **2004** - Handbook of Mangroves in the Philippines (UNESCO)